

Claims

1. Home and building information system with at least one electrical power network (38) connected to an electrical power supply line (39) and at least one local optical data network (40) for information exchange and the supply, control and monitoring of peripherals and terminals (52), characterised in that the electrical conductors (14) of the power network (38) and at least one optical fibre (30) of an optical passive data network (40) are arranged running parallel and integrated in all components, where these components comprise firstly fixed-wired installation lines (24, 30) with sockets (12) and secondly variable installations (48) with flexible network cables (32) and plugs (10, 50).
2. Information system according to claim 1, characterised in that the optical fibres (30) of the optical data network (40) are connected to at least one data supply line (41) by way of secured, disconnectable devices (60) with electrical power pack (54) and optical interface (56).
3. Information system according to claim 1 or 2, characterised in that integrated in preferably standard sockets (12), plugs (10), multiple plugs (50) and connector strips, in addition to the Live (16, 22), Neutral (18, 24) and Earth (20, 26), is at least one optical fibre (30) with corresponding optocouplings (28), where the optical fibre (30) has a beam splitter (46) at each branch (44) of the electrical conductors (14), in each multiple plug (50) and in each connector strip.
4. Information system according to any one of claims 1 to 3, characterised in that all sockets (12) of the fixed-wired installation (38) are connected by way of their own optical line (30) to a central system (62) which allows elimination or a restricted number of beam splitters (46) in fixed laid installations (48) and of multiple plugs (50) in variable installations (48).

5. Information system according to any one of claims 1 to 4, characterised in that the optical data network (40) is connected to the external information supply line(s) (41) by way of an optical interface (56) connected to a socket (12), preferably at least one transceiver (60) with power pack (54) and optical interface (56) or at least one modem.
6. Information system according to any one of claims 1 to 5, characterised in that a transceiver (60) connected to a socket (12) supplies several local data networks (40).
7. Information system according to any one of claims 1 to 6, characterised in that the data supply line(s) (41) are telephone, television and/or internet lines.
8. Information system according to any one of claims 1 to 7, characterised in that the optical fibre (30) is taken from a flexible network cable (32) and connected externally to an optical interface (56) of a peripheral or terminal (52) not supplied by the electrical power network (38), or the optical fibre (30) is taken from a flexible network cable (32) and connected externally to an optical interface of a peripheral or terminal (52) without corresponding equipment.
9. Process for use of an information system according to any of claims 1 to 8, characterised in that it is used with different standards simultaneously.
10. Process according to claim 8, characterised in that the standards and protocols of information transmission are determined by the devices (52) connected to the sockets (12).
11. Process according to claim 9 or 10, characterised in that computer networks, multimedia and communication devices with high speed transmission, in particular up to around 10 Gbit/sec, domestic appliances,

office and workshop machines with lower transmission rates are operated, preferably with separate wavelengths for transmission and reception.